

1.1. Introduction

This plan outlines the objectives and approach for an Independent Technical Risk Assessment (ITRA) of the [Program Name] program in support of a [Date and event, e.g., May 2018 Milestone (MS) X] by the [Milestone Decision Authority]. The [Program Name] program is [broadly identify program and relevant attributes]. The [Organization conducting the ITRA] will conduct the ITRA in accordance with Under Secretary of Defense for Research and Engineering (USD(R&E)) policy and guidance.

1.2. System Description

Provide a short description of the system. Describe any system or program aspects that may impact the conduct of the ITRA (e.x. new technologies, mission changes, low manufacturing rates)

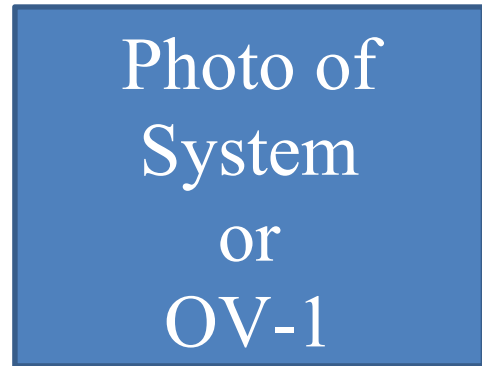


Figure 1. Program Name

2. Assessment Scope

The assessment examines the program’s technical, engineering, and integration risk, to include technology and manufacturing risk, where those risks may prevent the end item from meeting cost, schedule, or performance expectations

2.1. Assessment Areas

The ITRA will assess technical risks in accordance with the USD(R&E) Defense Technical Risk Assessment Methodology (DTRAM), the DoD ITRA Framework for Risk Categorization, and the 2011 Technology Readiness Assessment Guidance. The DTRAM is organized into eight technical risk areas across seven factors as shown in Figure 2.

Factors > Areas <	Performance & Quality	Scope & Requirements	Design & Architecture	Evaluation	Schedule	Decision & Control	Resources
Mission Capability							
Technology							
System Develop & Integrat.							
MOSA							
Software							
Security & Cybersecurity							
Manufacturing							
Ram & Sustainment							

Figure 2. DTRAM Scorecard

Identify any DTRAM areas or factors that will be tailored out of the ITRA and the reasoning for not assessing that area or factor. For Example: “The ITRA team will not assess manufacturing since this program is a software development program for existing equipment and will not manufacture any hardware.”

2.2. Key technical Drivers

The ITRA team will assess the following key technical drivers in greater detail:

Briefly identify the technical focus areas, the reason for selecting them and how it may affect the upcoming milestone or production decision. List in order of importance. Focus areas should be very specific to the program assessed and not generic risks. For example:

Readiness for Increment 1 Full-Rate Production (FRP)

- *The Program is tracking the following Low Rate Initial Production (LRIP) issues*
 - *LRIP manufacturing issue*
 - *Design stability due to multiple manufacturing changes*
 - *Supplier issue*
- *Contractor may not meet initial production rates, delaying IOC and potentially increasing Increment 1 costs due to design changes after production contract award*

Software maturity

- *Software development is behind schedule. Mission essential software improvements have been delayed resulting in OT&E finding the system to be not operationally effective*
- *Commencing FRP with the current software build may result in fielding non-mission capable systems. Significant software changes may necessitate hardware changes, increasing cost*

3. Assessment team members

The team members have been selected based on their expertise in the planned assessed areas. The team will sign appropriate agreements (e.g., program security, nondisclosure agreements) as necessary before the review. Table 3-1 lists the team members, areas of expertise, organization, and contact information.

Table 1. Assessment Team Members

Name Organization	Expertise	Site Visits	Contact Information
ITRA Lead Name Organization	Key tech driver DTRAM area	All	XXX-XXX-XXXX Frank.N.Stein@mail.mil
Lead Action Officer Name Organization	Key tech driver DTRAM area	All	
Name Organization	Key tech driver DTRAM area	1,4	

Name Organization	Expertise	Site Visits	Contact Information
Name Organization	Key tech driver DTRAM area	2,3	
Name Organization	Key tech driver DTRAM area	None	
Name Organization	Key tech driver DTRAM area	None	
Key Program POCs			
Name	Program PM		
Name	PMO Chief Engineer		
Name	Manufacturing Lead		

Site Visit Legend:

1. Leveraged program event
2. Leveraged program event
3. PMO site visit
4. Contractor facility site visit

Team Member Guidance:

1. Ensure at least one individual’s expertise aligns with every key technical driver
2. Ensure remaining DTRAM areas are covered by a qualified individual
3. Assess what team members need to be at each site visit

4. Assessment schedule

The ITRA will leverage on-going program activities to reduce burden on the program. The ITRA team lead has coordinated the ITRA schedule listed at Table 2 with the [Program] Program Management Office (PMO). The ITRA team may schedule follow-up visits by one or more team members as required to clarify findings or to obtain information not available during the originally planned site visits.

Table 2. Assessment Schedule

Event	Date(s)
Assessment Preparation <ul style="list-style-type: none"> • Coordination meeting with the PMO • Document collection and review • Team training and planning meeting, as appropriate • Any briefs by external offices (e.g. Intel/threat brief by USD(I) or other Intel organization) • Meeting with requirements sponsor as appropriate 	 MM/DD/YYYY MM/DD/YYYY MM/DD/YYYY MM/DD/YYYY MM/DD/YYYY

Event	Date(s)
Program Engagements 1. Program leveraged event (e.g. Tech Review, Working Group) at Location 2. Program leveraged event (e.g. Tech Review, Working Group) at Location 3. PMO Site Visit at Location 4. Contractor Site Visit at Location	MM/DD/YYYY MM/DD/YYYY MM/DD/YYYY MM/DD/YYYY
Preliminary report <ul style="list-style-type: none"> • Team meeting to conduct analysis and synthesize findings, as appropriate • Draft preliminary report • PMO Review • Preliminary report submission to ITRA approval authority 	MM/DD/YYYY MM/DD to MM/DD/YYYY MM/DD to MM/DD/YYYY MM/DD/YYYY
Final Report <ul style="list-style-type: none"> • Draft final report • Report approval staffing • Report approval 	MM/DD to MM/DD/YYYY MM/DD to MM/DD/YYYY MM/DD/YYYY
Milestone or Production Decision	MM/DD/YYYY

5. Assessment Preparation

5.1. Review Program Documents, Artifacts and Data

The assessment team will review program plans, documents, artifacts, and other data to gain a full understanding of the program. The ITRA team lead will coordinate with the program office to obtain needed artifacts. Table 5-1 presents a list of documents needed for ITRA team review.

Review the list of artifacts and documents you are asking the program office to provide in Table 5-1 below. **Tailor** the list of documents and artifacts you need, and ensure you have the right SME on the team to review.

Table 3. Assessment Documentation and Artifact Requirements

Document Name	Date of document on hand
Analysis of Alternatives	MM/DD/YYYY
Appropriate JCIDS document for phase	MM/DD/YYYY

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Concept of Operations	MM/DD/YYYY
Validated Online Lifecycle Threat (VOLT) Report	MM/DD/YYYY
Request for Proposal	Need
Acquisition Program Baseline [if MS B or later]	Need
Cost Analysis Requirements Description (CARD)	
Acquisition Strategy	
Systems Engineering Plan (SEP)	
Risk Management Plan	
Software Development Plan or Test Plan	
Test and Evaluation Master Plan (TEMP)	
Integrated Master Plan	
Integrated Master Schedule (electronic version, native format)	
Information Support Plan	
Life Cycle Sustainment Plan	
Program overview briefing w/ organization charts	
Risk Register and Risk Management Board Minutes	
Technical Performance Measures, including software	
Software Test Reports, Software Measurement Plan	
Software Data: (e.g. schedule, effort hours, planned duration, Defects, Defect backlog, Planned size SW test reports, etc.,	
Reliability Data	
Presentations from SETR events [, e.g., SRR, PDR, CDR]	
Assessments: Technology Readiness Assessment, Independent Reviews, Non-Advocate Reviews, etc.	
OA, DT or DOT&E Report	
Manufacturing Plan / Assessments / Manufacturing Readiness Review artifacts	
Manufacturing Data	

6. Conduct Site Visits

If desired, the Team Leader can provide an introductory briefing to provide an overview of the assessment, and what the program office can expect. The assessment is on a non-attribution basis. A DCMA representative is encouraged to attend the contractor presentations and provide insight and visibility on day-to-day contractor activities and processes.

6.1. On-site Logistics

The assessment team will need a program point of contact, visit request, security clearance, and site entrance information. A dedicated conference room is requested for internal team discussions at the site visit location to effectively execute the assessment.

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7. Developing ITRA reports

After the documentation review and site visit(s), the assessment team will synthesize data, develop findings, assess risks, and provide recommendations in each area. The team will use the programs identified in Table 4 as benchmark programs to be compared to this program to assess the realism of program objectives, resources, and schedule.

Table 4. Benchmark Programs

Program Name	Assessment Area	Basis for selection or Limitations
Program Name (Acronym)	Schedule Software	Program of similar complexity and size
Program Name (Acronym)	Software	Similar development approach and size.
Program Name (Acronym)	Manufacturing	Similar production approach. Did not incorporate XXXX manufacturing technology
Program Name (Acronym)		

7.1. Preliminary Report

A preliminary report that summarizes the technical risks, provides actionable recommendations, and is supported by appropriate documentation and analysis will be presented to the [Program Name] PM and shared with the MDA.

The preliminary report provides the PM with an early opportunity to review the ITRA team's identified risks, correct any factual inaccuracies, and initiate any risk mitigation activities the PM deems appropriate. The ITRA preliminary report also provides the approval authority and the MDA with early notification of any risks that may require outside support or elevation before the milestone or production decision.

7.2. Final Report

The final report will provide the Milestone Decision Authority (MDA), Congress, and other stakeholders with an independent analysis of the program's risk posture and provides the MDA data to support statutory reporting responsibilities. The ITRA final report will consist of an executive summary, a detailed report with the requisite data and analysis needed to support the team's findings, assertions and recommendations.

a. The executive summary will provide an overview of the program's technical risk posture, to include critical technologies and manufacturing processes. It will identify risks to be brought to the MDA's attention and provide recommended mitigation strategies for high-risk areas.

b. The detailed report will provide greater detail, expands on the risks identified in the executive summary. The detailed report will include enough supporting data to substantiate the ITRA team's assessment of the program risks and ensure the report can be understood without

referencing external documents. The detailed report will include A DTRAM scorecard similar to the one shown in Figure 1. This visualization tool, coupled with the standard risk cube, provides leadership with a quick cross-reference to the technical risks as well as key elements of program progress.

OVERALL							
PERFORMANCE		SCHEDULE			RESOURCES		
Factors > Areas ∨	Performance & Quality	Scope & Requirements	Design & Architecture	Evaluation	Schedule	Decision & Control	Resources
MISSION CAPABILITY	F. Mission effectiveness demonstration	N. Identification of needed data				U. Radio frequency waiver	
TECHNOLOGY		Aa. Technologies identified		Ab. Technologies demonstrations ahead of schedule			
SYSTEM DEVELOP. & INTEGRAT.	Ad. Contractor leveraging internal funding	R. GFE delivery requirements	S. Low maturity of XXXX T. External system data delivery	C. Low thrust (TPM) results	A. Aggressive program schedule I. Scheduling of integration assets	E. System weight growth	W. Availability of SIL X. Availability of SIL
MOSA		Ac. Use of open system standards		X			X
SOFTWARE	Q. Software and SoS integration	D. Identification of software req.					B. Software staffing lagging development
SECURITY & CYBERSECURITY			G. PPP implementation plan for system				
MANUFACTURING		O. Production gap during LRIP	Ae. Manufacturing process demonstrated	J. Manufacturing readiness for MS C	K. Accelerated schedule		M. FRP production capacity
RAM & SUSTAINMENT	Z. Impact of failures on mission essential functions	L. Realism of RAM allocations Y. Untraced allocated requirements	V. Reliability growth planning unrealistic	Aa. XXX sub-system performance		P. Sustainment planning is lacking	H. Unfilled RAM billets

■ Low risk
 ■ Moderate risk
 ■ High risk
 ■ Positive
 Assessed - No Significant Findings
 Not Assessed

Figure 2. Notional Assessment Scorecard

c. The underlying supporting documentation and analysis include the data, briefs, and documentation the ITRA team collected during the conduct of the ITRA and the analysis the team conducted that form the basis of the ITRA risks and observations.

Acronyms

[Tailor for this assessment]

ACAT	Acquisition Category
CDD	Capability Development Document
DoD	Department of Defense
DOT&E	Director, Operational Test and Evaluation
DT&E	Development Test and Evaluation
IPR	In Process Review
IPT	Integrated Product Team
ITRA	Independent Technical Risk Assessment
PM	Program Manager
PMO	Program Management Office
POC	Point of Contact
SE	Systems Engineering
T&E	Test and Evaluation
TWS	Tactical Warfare Systems
WIPT	Working Integrated Product Team